UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/368,635	08/04/1999	MARTIN F. ARLITT	10981718-1	5764

7590   01/30/2007

HEWLETT PACKARD COMPANY
INTELLELLECTUAL PROPERTY ADMINITRATION
3404 E HARMONY ROAD
P O BOX 272400
FORT COLLINS, CO 80528-9599

EXAMINER
WOO, ISAAC M

ART UNIT	PAPER NUMBER
2166	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

		Application No.	Applicant(s)
Office Action Summary		09/368,635	ARLITT ET AL.
		Examiner	Art Unit
		Isaac M. Woo	2166

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 November 2006</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1 and 3-7</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1 and 3-7</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

November 22, 2006 has been entered.

2.   Claims 1 and 3 are amended. Claims 2 and 8-15 are canceled. Claims 1 and 3-7

are pending.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1, 3 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Holt, III et al (U.S. Patent No. 6,324,565, hereinafter, "Holt") in view of Lambert et

al (U.S. Patent No. 6,038,601,hereinaftere, "Lambert").

With respect to claim 1, Holt discloses that in a data access network system that includes content server (14, content providing server, fig.1) coupled to a plurality of proxy servers (12, intermediate servers (col. 7, lines 36-60), fig. 1, col. 3, lines 38-67 to col. 4, lines 1-45) via an interconnect network (fig.1, col. 3, lines 22-39), a system of maintaining content consistency between the content server (14, content providing server, fig.1) and proxy server (12, intermediate servers (col. 7, lines 36-60), col. 3, lines 38-67 to col. 4, lines 1-45), consistency manager also in the content server (14, content providing server, fig. 1) in the content server for notifying all of so subscribed proxy servers (12, intermediate servers, col. 7, lines 36-60, fig. 1, col. 3, lines 38-67 to col. 4, lines 1-45) that cache the content file when the content file is updated in the content server to discard the cached content file from those proxy servers, see (col. 6 lines 11-14, the content server 14 notifies updates to all intermediate servers which cached the content. Holt teaches to update the content file at the intermediate servers (col. 6 line 18-19). Updating the file implies that the old file is discarded. Holt does not explicitly disclose a list specifying all of the proxy servers that subscribed to a content file. Holt teaches notifying all intermediate servers that cached the data of update (col. 6 lines 11-15). Hence, Holt must have some mechanism for knowing which intermediate servers cached the data. Having a list of subscriber is well known in the art. In similar field of invention, Lambert discloses a system having caching server 304 that is proxy server that subscribes contents (fig. 2 and 3, col. 5, lines 27-60) and subscription manager has list that specifies proxy server (col. 23, lines 27-61, col. 27, lines 55-67 to col. 28, lines

1-9, col. 29, lines 17-45). Given the teaching of Lambert, one of ordinary skill in the art

would have been motivated to have a list of all proxy servers that subscribed to the

content because it would have enabled quick access to membership information and

enable the content server to notify appropriate proxy servers of content updates.

With respect to claim 3, Holt discloses the proxy server notifies subscription

manager that it has cached the content filed via an HTTP GET request when the proxy

server decides that the content file should be cached (col.3 lines 62-67 to col.4 lines 1-

23, col.7 lines 35-45). Since the intermediate server and Content server are Internet

servers, it is inherent that HTTP GET is used when the intermediate server send a

request for document to the content server 14. Holt does not specifically teach

providing SUB header in the request. However, Holt teaches the content server 14 can

distinguish request made from an intermediate server verse request made from a client

(see col.6 lines 56-61). If the request is from an intermediate server, the content server

keeps a record of it so it can notify the intermediate server of changes (see col.7 lines

35-45). Hence, Inherently there is some type of indicator in the request indicating that

the request is from an intermediate server. Since the content server records the fact

that the intermediate server is caching a particular document in response the request

from the intermediate server, the request is effectively a subscription notification to the

content server as claimed. Therefore, Holt has a SUB header as claimed.

With respect to claim 5, Holt discloses the content server notifying all subscribed proxy servers when a content file has changed (col.6 lines 11-14). The notification inherently has some indicator that this is a update notice in order for the intermediate servers to know what is being communicated from the content server. The notification constitutes a DWS INV message as claimed.

With respect to claim 6, Holt discloses the content server sending updated content file to each proxy servers (col.6 lines 17-20). Since the intermediate server and Content server 14 are Internet servers, it is inherent that HTTP PUT request is used when the content server 14 pushes updated content files to the intermediate servers. Holt does not specifically disclose DWS Sub header in the request. However, It is inherent and obvious to have indicator indicating that updated content is being send so as to enable the intermediate server to take appropriate action to update the cached content. The indicator constitutes the DWS Sub header as claimed.

With respect to claim 7, Holt discloses notifying all of subscribed proxy servers to discard the cached content [col.6 lines 10-20]. Since the content server sends out update notice after a data change occurred, it is inherent that the update notice is send from the content server within a time interval after the change. Furthermore, It would have been obvious for one of ordinary skill in the art to send out the notice within a predetermined time interval so as to permit timely update of the content at the intermediate cache servers.

5.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Holt, III et

al (U.S. Patent No. 6,324,565, hereinafter, "Holt") in view of Lambert et al (U.S. Patent

No. 6,038,601,hereinaftere, "Lambert") further in view of Aggarwal et al (U.S. Patent No.
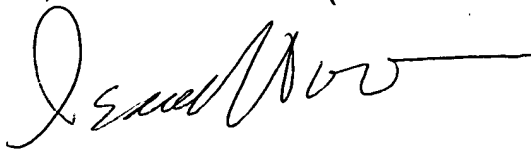
6,012,126, hereinafter, "Aggarwal").

With respect to claim 4, Neither Holt nor Lambert explicitly disclose, the content

file is not a popular file, then that proxy server does not notify the subscription manager

that it has cached the content file, see (col. 1, lines 46-67 to col. 2, lines 1-12, col. 3,

lines 38-67 to col. 4, lines 1-45). However, Aggarwal discloses the admission control

logic uses popularity criterion for the object accessed. The auxiliary stack serves as

dynamic popularity list and an object may admitted to the cache if and only if it appears

on the popularity list, see (col. 3, lines 63-67 to col. 4, lines 1-13). And Aggarwal

discloses the object of the admission control logic is to limit entry to the cache to objects

which meet a popularity criterion, see (fig.2, fig.4, col. 6, lines 19-42). This teaches the

file that is not popular is not cached (subscribed). Therefore, it would have been obvious

to a person having ordinary skill in the art at the time of the invention was made to not to

include the content file that is not a popular file. Hence, it would have been obvious to

have the proxy server not notify the subscription manager that it has the unpopular file

because it would have reduced traffic. Caching only popular files provides saving

accessing time for contents with reducing fetch time and saving storage medium in

computer environment.

Conclusion

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac M. Woo whose telephone number is (571) 272-4043. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Isaac Woo
January 22, 2007